Associative Container Practical Solutions

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std::set example

- Write a program that creates an std::set object and populates it
- What happens if a duplicate element is inserted? Make sure your program handles this case correctly
  - The insert() call will fail, since duplicates are not allowed
  - This can be detected by checking the std::pair object that the insert() call returns
- Modify your program so that it erases an element, then inserts a new element with the same value as the erased element

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std::map example

- Write a program that creates an std::map object and populates it
- Use the subscript syntax to modify an existing element in the map
- Use the subscript syntax to add a new element to the map
- After each of the above operations, display the elements of the map
- Use the find() member function to retrieve an element from the map and print it out

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std::multiset example

- Write a program that creates an std::multiset object, populates it and prints out all the elements
- What happens if a duplicate element is inserted?
  - The insert() call will succeed, since duplicates are allowed
  - A new element will be created with the same data

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std::multimap example

- Write a program that creates an std::multimap object, populates it and prints out all the elements
- What happens if a duplicate element is inserted?
  - The insert() call will succeed, since duplicates are allowed
  - A new element will be created with the same key

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